

# LEVEL & FLOW CONTROL VALVE

with 3-Way Altitude Pilot

## Model 757-80-U EN/ES

Hydraulically operated control valve that controls reservoir filling and reservoir level. During filling, the valve limits the flow to a pre-set maximum, regardless of fluctuating upstream pressure or reservoir level and protects the valve from cavitation damage. The valve shuts off at a pre-set reservoir high level and fully opens in response to an approximately one meter (3 ft) level drop, as sensed by the 3-Way altitude pilot mounted on the main valve.

BERMAD 700 SIGMA EN/ES series valves are hydraulic, oblique pattern, globe valves with a raised seat assembly and double chamber unitized actuator, that can be disassembled from the body as a separate integral unit. The valves hydrodynamic body is designed for unobstructed flow path and provides excellent and highly effective modulation capacity for high differential pressure applications. The valves are available in the standard configuration or with an Independent Check Feature code "2S". The 700 SIGMA EN/ES Valves operate under difficult operation conditions with minimal cavitation and noise. They meet size and dimensions requirements of various standards.



[Click here for control accessories](#)



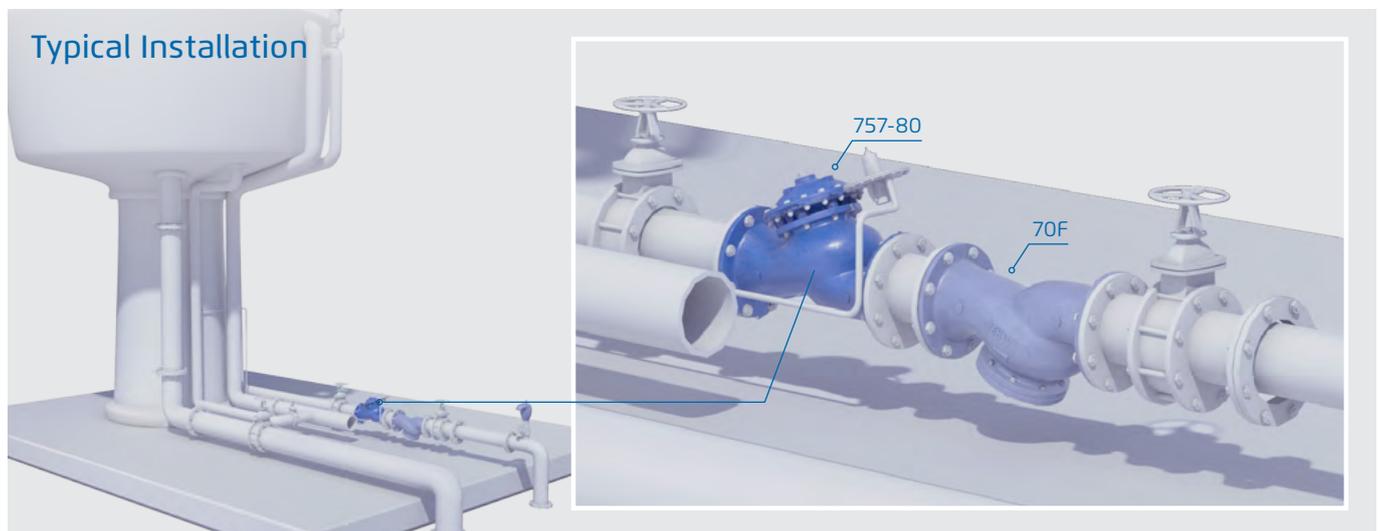
### Features and Benefits

- Designed to - stand up to the toughest conditions
  - Excellent anti-cavitation properties
  - Wide flow range
  - High stability and accuracy
  - Drip tight sealing
- Double chamber design
  - Moderated valve reaction
  - Protected diaphragm
  - Optional operation in very low pressure
  - Moderated closing curve
- Flexible design - Easy addition of features
- Obstacle free flow pass

- V-Port Throttling Plug (Optional) - Very stable at low flow
- Compatible with various standards
- High quality materials
- In-line serviceable - Easy maintenance

### Major Additional Features

- Pressure sustaining – 753-80-X
  - Closing surge prevention – 757-80-49-X
  - Solenoid Controlled – 757-80-55
  - Electric Override – 757-80-59
  - Independent Check Feature – 757-80-2S
- See relevant BERMAD publications.

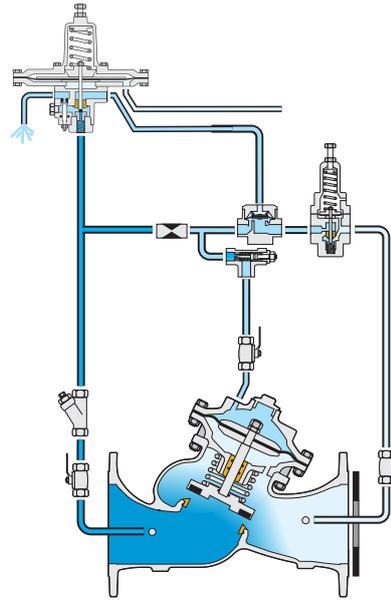


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Regulating



This drawing refers to 1½ – 8"; 40-200 mm sized valves only. For other sizes please refer to the Model's IOM.

### Main Valve

**Valve Patterns:** "Y" (Globe)

**Size Range:**

**EN Series:** 1½-16"; 40-400 mm

**ES Series:** 2½-24"; 65-600 mm

**Pressure Rating:** 25 bar; 400 psi

**End Connections:** Flanged (all standard)

**Plug Types:** Flat disc, V-port, Cavitation cage

**Temperature Rating:** 60°C; 140°F for Cold water applications.

**Optional higher temperature:** Available on request

#### Standard Materials:

**Body & actuator:** Ductile Iron

**Bolts, nuts & studs:** Stainless Steel

**Internals:** Stainless Steel, Tin Bronze & Coated Steel

**Diaphragm:** Fabric-reinforced synthetic rubber

**Seals:** Synthetic rubber

**Coating:** Dark blue Fusion bonded epoxy

### Control System

#### Standard Materials:

**Accessories:** Stainless Steel, Bronze & Brass

**Tubing:** Stainless Steel or Copper

**Fittings:** Stainless Steel or Brass

#### Float Pilot Standard Materials:

**Body:** Brass or Stainless Steel 316

**Elastomers:** Synthetic Rubber

**Internal Parts:** Stainless Steel 316 & Brass

**Lever System:** Brass or Stainless Steel 316

**Float:** Plastic

**Float Rod:** Stainless Steel

**Base Plate:** Fusion Bonded Epoxy Coated Steel  
or Stainless Steel 316

#### Pilot Options:

Various pilots and calibration springs are available.

Select according to valve size and operating conditions.

For more details check altitude positioning pilots product pages.

#### Orifice Assembly

**Body:** Fusion Bonded Epoxy Steel or Stainless Steel

**Orifice Plate:** Stainless Steel

### Notes

- Orifice diameter is calculated for each valve.
- Flow Setting Range: (-)15% & (+)25% from predetermined flow
- Orifice assembly adds 20-25mm ; ¾"-1" to valve length
- Recommended continuous flow velocity: 0.3-6.0 m/sec ; 1-20 ft/sec
- Minimum operating pressure: 0.7 bar ; 10 psi. For lower pressure requirements consult factory
- Inlet pressure, outlet pressure and flow rate are required for optimal sizing and cavitation analysis

